/16 cont./

296 824 (arikoko). "One specimen in the collection is carved out of wood in its natural form (Fig. 4 and Pl. I /see p. 103/, 1).

252 Preparation of food. Directly in front of the house door is found the cooking place, surrounded by low pole frames on which the squeezed manioc is dried. Large earthen pots stand on stones [364] or clay supports over the fire. The ground around is littered with [136] scraps. These heaps are the breeding places of annoying gray flies (the so-called mosca da aldeia), which sting badly and, when they get out of hand, necessitate abandoning the place.

[462] Untiringly the women are busy throughout the day with dragging in the field produce and fire-wood, the preparation of manioc, pounding maize, opening palm nuts, and the careful supervision of all the culinary processes, in which the Indian housewife, despite the simplicity of the materials, knows how to achieve a relatively great diversity.

[876] ←

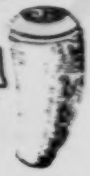


Fig. 4. Tobacco pipe (1/4).

● 372 824 Fire is still made wholly in the original way by means of the drill (hădă). It consists of two sticks. The thicker one, wood of the urucú plant, is fixed on the ground after a shallow cavity provided with a deep cut at the side is made near one end. Then the point of the second, thinner stick of taquara /Chusquea sp./ is set in this and is twirled between the palms with strong pressure until a hollow is formed at this point, out of which the glowing dust flows through the notch at the side and can be collected. Thus the procedure is precisely the one illustrated and described by Im Thurn (op. cit., p. 258). As in the method used by the Warrau /Warao/, no special tinder is needed. The pulverized wood itself supplies it. To kindle a livelier flame, dry strips of palm leaf are mixed with the easily flammable red resin (tamararu), which is like sealing wax, and then lighted.

/16 cont./

•372 Naturally the Karaya try to maintain the fire as long as possible and make a new one only when necessary. On longer boat trips glowing pieces of wood are always taken along on a bed of sand.

252 Meat and fish are roasted on a spit over a hot fire or laid directly on glowing coals until the uppermost layer, or the skin, is completely charred. The ashy parts of the latter, in combination with the reserved juice, make the use of salt unnecessary to a certain degree. Only the Karayahi have begun to become [243] accustomed to European salt. Salty soils, such as are found [317] in the campos at the so-called barreiros /clay pits/, as well as the ash of various woods, must serve as substitutes. Fish are probably also boiled.

Corn on the cob, aipim roots, sweet potatoes, and some palm fruits are likewise roasted over the fire.

The preparation of manioc is much more primitive than among the Xingu and Amazon tribes. The roots, provided with [412] deep cuts, are put in water for several days for maceration, then freed of the skins with knives or sharp shells, and pulverized on the grating board (ãranã), a biconvex board about three centimeters thick, with several rows of short buriti thorns in the middle (Pl. VIII /see p. 110/, 4).

[415] The pulverized mass is pressed with the hands, probably also with the aid of stones, to remove completely the poisonous juice, the largest part of which has already been taken out by the maceration, and then, washed and drained in peculiar little baskets (uãriti, see p. 41 ) plaited out of flexible cipos, dried in the air. By drying it in shallow pots one thus obtains the "water flour" (farinha d'agua) also generally widespread on the Amazon. Because of fermentation during the maceration, it has a slightly sour flavor, but can be kept much longer than the "farinha secca" /dry flour/ of trade, made out of the fresh root. This type of preparation, however, does not seem to be the original one practiced by them. More often, in accordance with an old national custom, the dried mass (puva, beerõ) is baked in large loaf-like lumps after several washings. Finally, small flat

/251 cont./

252 The hearth lies outside the houses, usually in the shade of mat walls or near them. In the rainy season it is moved to the round structures of the houses. It is constructed in two ways: either three truncated cones, the tops of termite hills [ă(ū)dŏ, kĕdŏ], are placed in a triangle in the sand, between which the fire is kindled (Plate 12, Ill. 1), or three broken pot bottoms (wădjĭwĭŭlă), which are set upended, are used instead. The large cooking pots are set on these supports. For roasting, low roasting hearths (kŏbĭŭdŏ) of twigs are used: Four forked sticks are stuck into the ground in a square, two longitudinal sticks are laid between them and over these cross-sticks are laid. The fire, which is lighted underneath, gradually chars the sticks (Plate 61, Ill. 1, Šavajé; see also below, p.168 ). Roasting on a spit is also customary: a switch is cut from the bushes, tapered to a point, and, with several piranhas strung on it, is stuck obliquely into the sand so that the upper end with the fish is suspended over the fire. The fish are /252/ first roasted on one side, and later, by turning, also on the other side.

313 Dry wood is used for firewood (hāă), as it is found in abundance everywhere on the sandbanks in trees washed ashore, as well as in the forest.

●313 [824] Fire (hearth fire: hăŏtĕ) is produced by twirling. Base and twirler may be of the same wood; usually ātĭtĕ (Brazilian sarão, the root of a goyaba /guava/ species) is used, but ăndōlŏkŏ (Brazilian mŭrĭzĭ) is also supposed to be usable (1). According to

1. The Brazilian names are given in the Indian pronunciation.

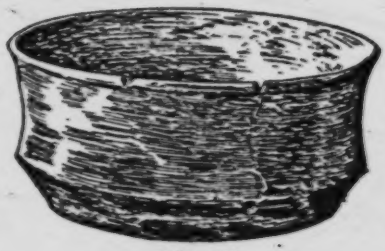
Ehrenreich (Berlin 3937), the drilling stick consists of taquara, the base of Bixa orellana. In the case of the /Ills. 87-89 appear here/ fire twirler reproduced in Ill. 87, the base shows three drilling holes; each hole is opened laterally by a notch so that air can enter. The twirler consists of a wooden rod, to the bottom of which is tied another stick of wood three centimeters long as the actual drilling piece. Tinder is not used; dry palm leaves serve for kindling the flame.

/252 cont./

• 372 The fire is never allowed to go out, but rather care is taken to keep it constantly burning. On boat trips the Indians take along glowing bast (hãŏdé; Ill. 88) or pieces of slowly smoldering wood (hãdĕké) on a sand base in the boat, and similarly when they go to the plantings. Apparently, therefore, they dislike drilling new fire, but would rather transfer the fire to the new place. I often had the drilling of fire demonstrated for me, but the men never succeeded in getting beyond a huge development of smoke. These attempts, however, all happened to take place in wet weather.

Ill. 87. Fire twirler.

Ill. 88. Glow bast.



Ill. 89. Cooking pot, ordinary shape.

[252] [415] →

To fan the fire, fans (kŏli) which are plaited of palm fronds in simple fashion are used. The cooling fans (Plate 21, Ill. 2) differ from them only in that they have patterning.

252 /253/ Meat is merely roasted; fish and vegetables are [462] eaten roasted and boiled. The preparation of food is the duty of the women; they are busy with it all day. The men, too, however, know how to do it, and on journeys they roast and boil their food themselves in case of emergency. In the villages I never saw roasting hearths; these were found only on sandbanks with traces of camps. Wandering bands use them occasionally. My Karajá always built such roasting hearths

/276 cont./

482 415 Smaller loads are carried in containers on a hand-strap, for example, in carrying sacks (mãsĭ; Pl. 57, Ills. 5 and 6), carrying bags (lõlŭ; Pl. 57, Ill. 4), two-piece baskets (wrãbãhĭ; Pl. 57, Ills. 16 and 17), small pouches (Pl. 55, Ill. 6 a-c), or in small gourd vessels, the perforated edges of which hold the carrying-bands or which are either plaited round with bast (dãlĩlĭkŭ) or are set into a net of black cotton plaiting (wãlãbŭkŭ; Pl. 56, Ill. 4 a-c).

854 Children ride on the hip and are held there with the hand (Pl. 12, Ill. 4; Pl. 37, Ill. 2; Pl. 42, Ills. 2, 3).

50 [489] Their principal journeys take place by water in a boat. The boat (ãwŏ), of which there is one or more in each family, consists of a dugout six to ten meters long and 40-60 meters wide. The two ends are greatly elongated and slope up from below, so that getting on and off the sandbanks is easily accomplished (Pl. 56, Ill. 5). The boats have no seats; one squats or sits on the narrow bottom. Sometimes cross-rods are put in, upon which the cargo is placed to protect it from the bilge water. In one place [372] in the boat there is often a layer of loam upon which lies the smoldering wood for transporting fire.

The boats are propelled with oars and poles; both are used in journeys upstream and downstream, the poles, of course, only in shallow water. The oars (nãlĭhĭ) are manipulated freely as paddles, and, indeed, the rowers kneel or sit in the boat, their [502] faces in the direction of travel. If the boat is propelled by one man; he sits at the rear end and steers at the same time; with a crew of two men, one sits at the front end and one at the rear; several rowers distribute themselves over the entire boat. In the latter case, the rowing rhythm is entirely spontaneous, since the [533] ones in the rear must adjust to the man in front. The song which young people like to take up while rowing has nothing to do with the rhythmical rowing. There are various ways of working the oars: short strokes with pauses after each stroke; long, evenly spaced strokes; slow strokes with a lifting of the blade at the end, so that the water falls off the blade in a broad surge, are regarded [149] as a particularly elegant manner of rowing. The Indians have great endurance; they row for many hours without interruption.

/286 cont./

396 out with the ax. In this crude shape the boat is brought into the village and placed on two forked posts about half a meter high (Pl. 56, Ill. 5). With oaguassu palm fronds, which are laid in the hollow, the interior space is completely burned out and blackened, while at the same time burning through the walls is prevented by quickly snatching out the fire. Then, while the wood is still warm, about 20 cross-sticks, each approximately three centimeters thick, are stretched from wall to wall; palm fronds are propped against the boat all around and are lighted at four or five places on either side by one man each. After about five minutes the outside charring and blackening of the boat is completed. The struts remain in the boat until the next day; they are very bent. Afterwards the boat is put through an inspection, during which possible irregularities, especially of the bottom, which could cause disturbances in the balance, are removed with the ax. At the front, narrowly tapering end a hole is cut into the right wall, directly under the edge, for the loop into which the boat pole is stuck during the rowing or lying quietly on the bank. This hole is supposedly cut in with a sharp knife under the application of a wooden mallet.

415 412 114 I did not see wooden vessels. Ehrenreich brought back a few: a round vessel hollowed out from a tree root, with a carrying string (Berlin 3875) and two spoons, the handle of one of which terminates in a tucano head (3934, 3935). In the case of fire [372] sticks, according to him, the drilling stick consists of taquara, the base of Bixa orellana.

415 [824] Of larger fruits only gourds are used. They are carefully dried by being stuck on sticks that stand in the glaring sun and in the sand of the sandbanks. Later, tied together, they are hung on a vertical stick (Ill. 26 a, b). Hollowed out, they serve as oil containers, as hanging containers for white down feathers, with a bast stopper (Pl. 58, Ill. 3a) or wax seal (the hanging band is fastened with wooden wedges; Pl. 58, Ill. 3 b, c), halved paint bowls and eating dishes, smaller ones as spoons. The whole- [531] gourd vessel and larger half-gourd vessels are usually decorated with incised ornamentation, the smaller half-gourds with pyrography.

6:Cook M-3,4 (ca. 1900) 1909
SP9 Caraja SP9



the open air, just in front of the entrance to each hut, is the cooking place, which is surrounded by a slightly raised platform of sticks on which the manioc meal is evaporated. Large earthen pots are seen resting upon stands over the fire; while the ground around is littered with garbage, which, as previously mentioned, ferments, and attracts and breeds swarms of pestiferous flies. The women are as busy as bees, and toil untiringly throughout the whole of each and every day, gathering fruits and vegetables from forest and field, going many miles distant and returning, staggering under heavy burdens, gathering firewood, preparing manioc meal, pulverizing corn in wooden mortars, splitting the small cocoa nuts, and attending to the cooking. Dr. Ehrenreich says of the Karayá wife, that though her raw materials are limited, she, nevertheless, succeeds in producing a good assortment of food. Among all savage and semi-barbarous peoples, the females labor more assiduously than the males, and the burden of providing for the family seems to fall more upon them than upon the males. Here again, we observe the similarity between these children of Nature and the wild creatures, upon the female of whom falls the burden of providing for the brood.

The Karayá have no matches, or any of the appliances of civilization for kindling a fire, but still adhere to the ancient method. Fire is produced by means of two sticks of wood, one, which is of urucú, being secured to the ground. This is grooved and morticed in such a way that by setting the point of the second piece, which is a taquára reed, into the groove and causing it to spin rapidly by rolling it between the palms, glowing dust issues from the side of the first piece, with which a fire is kindled. Punk is not used; the piece of wood that is bored takes the place of punk. With this glowing dust, strips of palm-leaves are ignited after being daubed with easily inflammable red resin. But the primitive housekeepers seldom have to resort to this method of producing fire as they do not allow their camp-fires to die out. When on a journey, they carry fire-brands, or glowing coals, which are kept alive at times by being buried in the sand.